When the hose is fully extended, the high pressure boost pumps and the shut-off valve in the pod are maintained in the off position by a limit switch. As the receiver pushes the drogue forward, the reel responds by winding in the hose. At approximately 5 feet less than full extension, the limit switch is actuated, starting the pumps and opening the valve. Fuel flow is maintained until the receiver stops receiving fuel or pulls the hose out past the cut-off position. The fuel pressure at the drogue is controlled by automatic regulation of the pump speed. When the receiver's tanks are full, it backs away from the tanker shutting off the fuel as described above, and breaks the connection at the drogue at full hose extension. As the valve in the pod closes, a built-in by-pass opens to relieve the pressure trapped in the hose. The by-pass is vented to the outboard main tank.

The hose and drogue are jettisonable by remote control from the systems engineer's station.

The possibility of a problem involving hose-whip and associated phenomena is being investigated and further work will be required to assure satisfactory operating characteristics.

IN-FLIGHT REFUELING OPERATIONS

The following is an outline of the sequence of operations and events for the in-flight refueling mission.

NOTE: The signal lights on the pod are ON under the following conditions:

RED (Warning)	When either:
	1. IFR pump and valve switches are off or;
	2. IFR pump and valve switches are on, but hose is out less than 95 feet and fuel is not flowing.
AMBER (Ready)	When red and green lights are off.
GREEN (Fuel flowing)	When fuel is flowing

1. Conditions prior to preparation for in-flight fuel transfer:

All signal lights off.
Hose reeled in.
Drogue door switches "closed".
IFR System power switches "off".
IFR Valve and pump switches "off" or "closed".